**Chemistry 1st Semester Review**

1. How should a test tube be heated?
2. If you are unable to light a burner, what should be done before looking for new equipment?
3. How is a really small and really big number put into scientific notation?
4. Describe the motion of the particles of a solid.
5. What is the difference between a physical and chemical property?
6. What kind of container should be used to heat a chemical?
7. How is density calculated?
8. How is volume calculated from density and mass?
9. What are the metric prefixes, in order, from Mega to Micro?
10. Do metals have high or low melting points? Non metals?
11. Do metals conduct heat and electricity well? Non metals?
12. What does a balance measure?
13. What is a balanced chemical reaction?
14. What are the rules for determining the number of significant digits?
15. What is the difference between accuracy and precision?
16. How does a graph look with directly proportional data?
17. What do the dots of a dot diagram represent? (p.s. define the word valence in the answer somehow)
18. What kind of bond is formed when electrons transfer from a metal to a nonmetal?
19. What are physical characteristics of nonmetals?
20. What is the charge of an alpha particle?
21. What is strange about the masses of argon and potassium? (why is argon heavier?)
22. What is a half life?
23. What is used to find the mass of an atom?
24. What is used to find the protons in an atom?
25. What is a polyatomic ion?
26. Why do the noble gases not form compounds?
27. How many valence electrons does every element in group 1 have?
28. What is a compound?
29. What is an isotope?
30. Which group of elements is diatomic? (solid, liquid, or gasses)
31. How is the number of dots for a dot diagram determined?
32. What types of elements form a covalent bond?
33. What types of elements form an ionic bond?
34. How did Moseley rearrange the periodic table?
35. Which side of the periodic table will most likely lose electrons?
36. Which side of the periodic table will most likely gain electrons?
37. What is the name for the d-orbital elements on the periodic table? Tra\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_
38. Where are the metalloid elements found?